

2020 Diesel Emissions Reduction Act (DERA) State Grants

Work Plan and Budget Narrative Template

INSTRUCTIONS: States and territories applying for 2020 DERA State Grant funds must use this template to prepare their Work Plan and Budget Narrative.

Please refer to the 2019-2020 DERA State Grants Program Guide full program details, eligibility criteria and funding restrictions, and application instructions.

SUMMARY PAGE

Project Title: Florida Diesel Emissions Mitigation Program for Federal Fiscal Year (FY) 2020

Project Manager and Contact Information

[REDACTED]

[REDACTED] [REDACTED]
[REDACTED]

[REDACTED] [REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]
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Project Budget Overview:

	2017	2018	2019*	2020
EPA Base Allocation	\$301,990	\$282,020	\$342,934	\$390,112
EPA Match Bonus (if applicable)	\$150,995	\$141,010	\$171,467	\$195,056
State or Territory Voluntary Matching Funds (if applicable)	\$301,990	\$282,020	\$342,934	\$390,112
Mandatory Cost-Share	As required by category	As required by category	As required by category	As required by category
TOTAL Project Cost	754,975	705,050	\$857,335	\$975,280

*If state participated in 2019: Please note that Florida's participation in the 2019 DERA State Grant Program was tied to Florida's 2017 and 2018 DERA grant. Through consultation with EPA Region 4, Florida's application for 2020 will be the final year for this application cycle, which will allow the state to begin the next DERA grant along with the other states in Region 4.

Project Period

October 1, 2017 – September 30, 2021

Summary Statement

The Florida Department of Environmental Protection (Department) intends to use most of the available grant funding from program years 2017-2019 before September 30, 2020. The remaining amount will be used along with the allocated amount for this application. In January of this year, the Department identified and encumbered three projects to be completed before September 30, 2020. The first is for the replacement of four marine diesel engines on a ferry vessel in Fort Myers,

FL, for a \$4.5 million project, of which \$1.8 million (40 percent) will be provided through DERA and the Department's state match funding. The second and third projects are for the replacement of drayage trucks operated at JaxPort in Jacksonville, FL, and Port Miami in Miami, FL, for just under \$300,000 in grant funding. These three projects will use most of the remaining amount of DERA State Grant funding to date. The Department calculates that less than \$200 of current EPA funding will remain when the three projects are completed and fully reimbursed.

The Department is now applying for 2020 funding as the fourth and final year of the current grant to be utilized in conjunction with funds made available to the State of Florida from the Volkswagen settlement's Environmental Mitigation Trust (Trust). The Department intends to use funds from the Trust as the state's voluntary match.

With this application, the Department intends to use 2020 funds for a large-scale project or projects like the \$4.5 million ferry project listed above. At present, the project types to be funded during the 2020 budget cycle will focus on ports and other modes of commerce, primarily through marine engines and other on-road, nonroad, or rail options.

The Department maintains a website that provides the public with information on DERA programs and details past DERA-related projects in the state: <https://floridadep.gov/air/air-director/content/diesel-emissions-reduction-act-dera-florida>

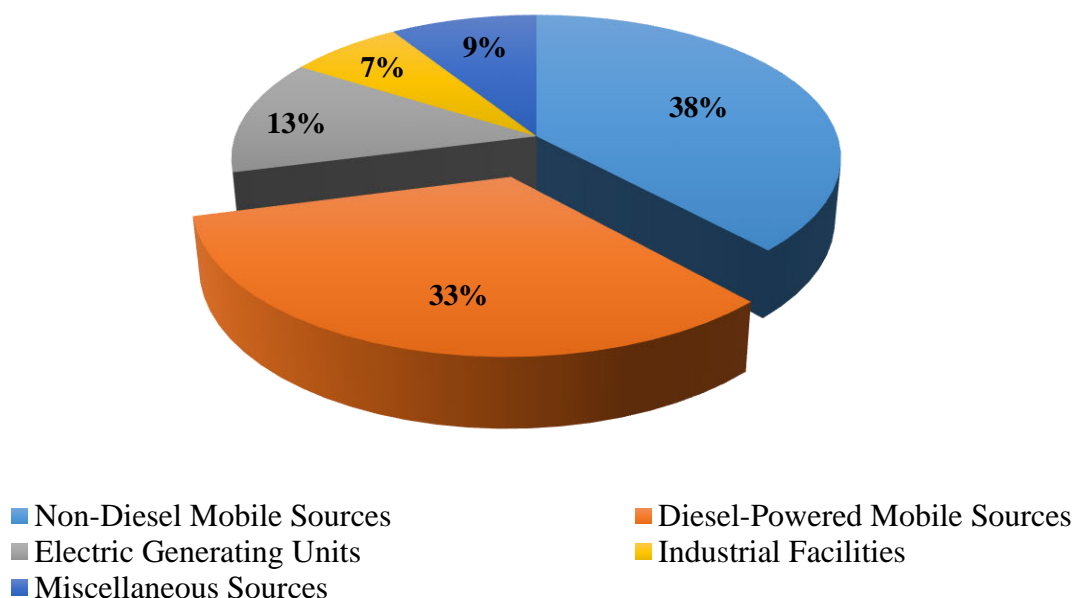
SCOPE OF WORK

STATE/TERRITORY GOALS AND PRIORITIES:

On March 5, 2020, Florida was redesignated for the 1-Hour Sulfur Dioxide (SO₂) Standard, which means Florida is now in attainment for all criteria pollutants. Although most air pollutants in Florida occur in concentrations well below the National Ambient Air Quality Standards (NAAQS), some can occur locally in concentrations that potentially affect the health of Florida's citizens. The criteria pollutants of greatest concern for mobile emissions are ground-level ozone and particulate matter, together with the precursors that form them (i.e., NO_x, SO₂, and volatile organic compounds [VOCs]). The use of legacy diesel-powered vehicles is a significant contributor to the total emissions that lead to ground-level ozone formation and increased particulate matter concentrations. Local impacts from diesel exhaust includes a range of hazardous air pollutants, which are an additional health concern.

According to the 2014 National Emission Inventory (NEI), Florida's total emissions of NO_x from all sources, both stationary and mobile, was 582,390 tons.¹ The majority of these NO_x emissions came from mobile sources. These sources emitted 416,565 tons in 2014, approximately 71% of the total statewide NO_x emissions. In Florida, approximately 33% of all NO_x emissions (194,638 tons) are from diesel-powered mobile sources. Figure 1 shows the sources of NO_x emissions in Florida. Figure 2 shows the distribution of total NO_x emissions by county.

Figure 1. Percentage Distribution by Sector for All NO_x Emissions in Florida (2014)



¹ EPA's 2014 NEI Data: <https://www.epa.gov/air-emissions-inventories/2014-national-emissions-inventory-nei-data>

Figure 2. Distribution by County for All NO_x Emissions in Florida (2014)

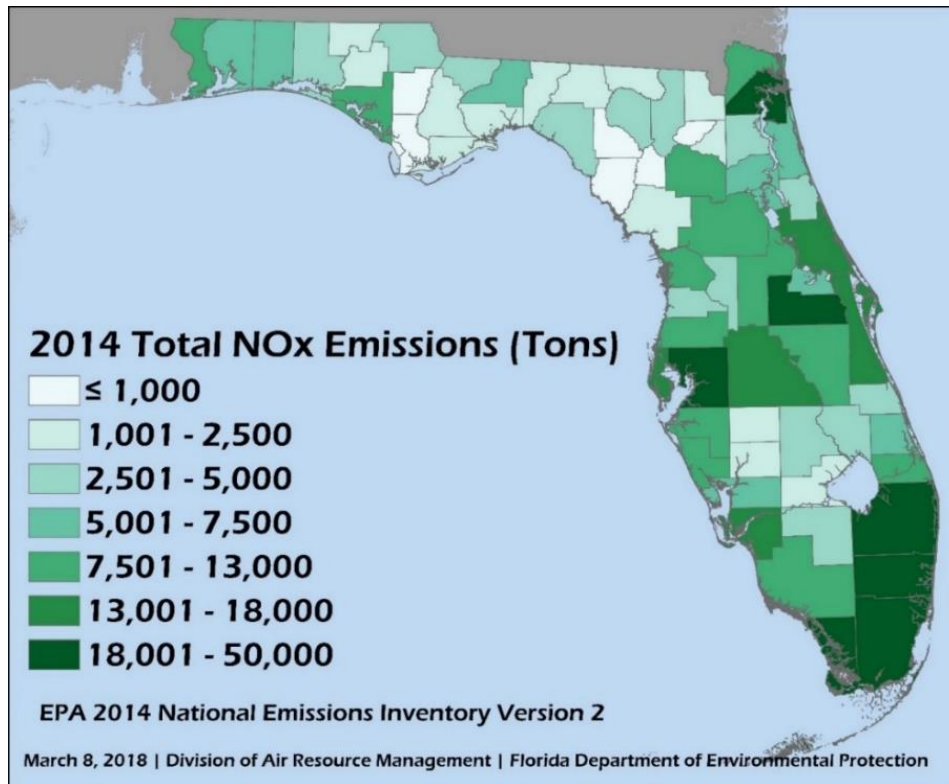


Figure 3 shows the main categories of NO_x emissions from diesel-powered mobile sources. Figure 4 shows mobile sources of NO_x distributed by county. Of the 194,638 tons of NO_x emitted from diesel-powered mobile sources, the sources break down into the following specific subcategories:

- 100,709 tons from on-road diesel heavy-duty vehicles (i.e., tractor trailers);
- 63,675 tons from non-road diesel equipment (e.g., heavy forklifts);
- 16,786 tons from commercial marine vessels (e.g., cruise and container ships);
- 7,448 tons from on-road diesel light-duty vehicles (i.e., personal vehicles); and
- 6,020 tons from diesel-powered locomotives (e.g., switcher locomotives).

Figure 3. Percent Distribution of Diesel-Powered Mobile Source NO_x Emissions (2014)

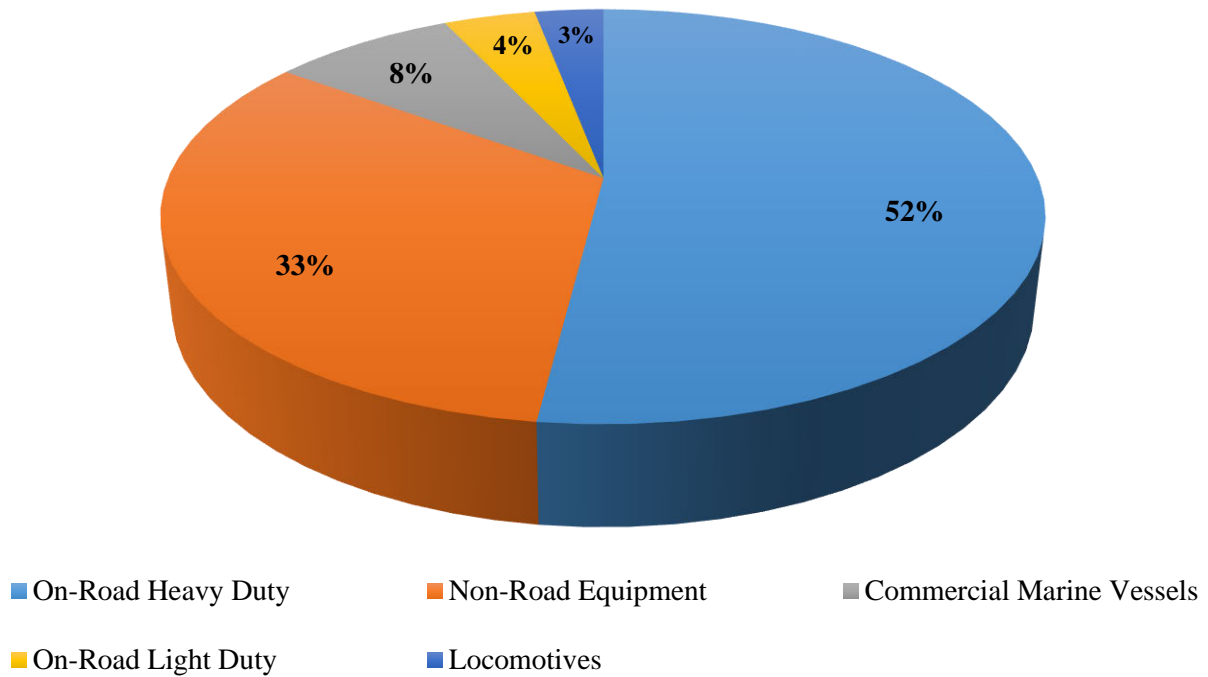
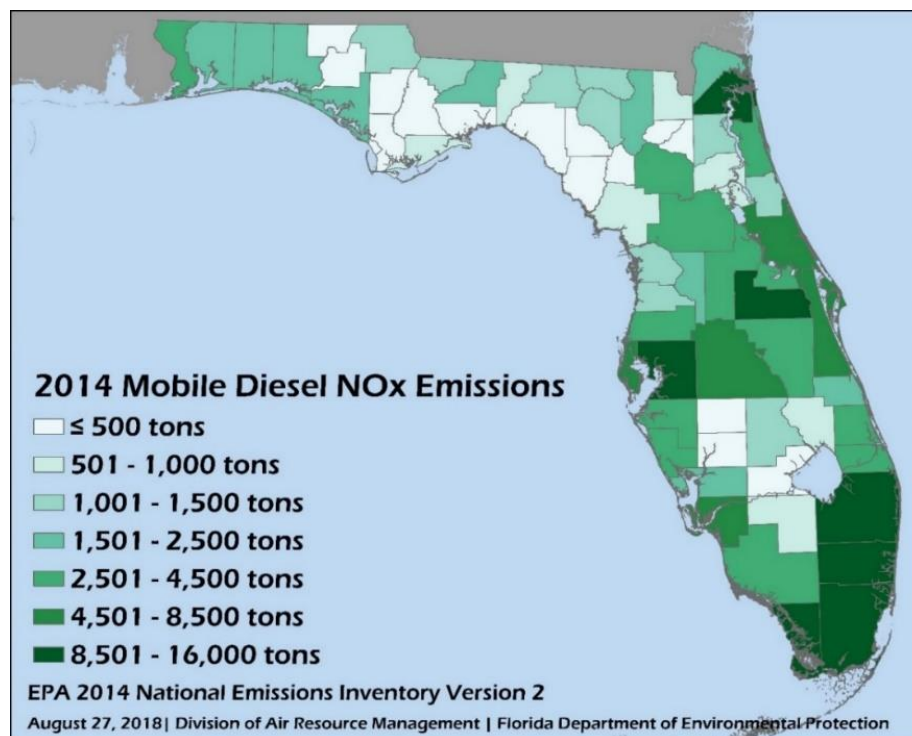


Figure 4. Distribution by County for Mobile Source NO_x Emissions in Florida (2014)



The 2014 NEI indicates that Florida's total emissions of fine particulate matter (PM_{2.5}) from mobile sources is 19,810 tons. Approximately 63 percent of this total is from diesel-powered mobile sources including:

- 5,682 tons from on-road diesel heavy duty vehicles;
- 4,840 tons from non-road diesel equipment;
- 1,389 tons from commercial marine vessels;
- 273 tons from diesel-powered locomotives; and
- 305 tons from on-road diesel light duty vehicles.

Florida's ambient monitoring network for PM_{2.5} shows that there are no areas of the state exceeding either the annual or 24-hour PM_{2.5} NAAQS.

The 2014 NEI indicates that Florida's total emissions of coarse particulate matter (PM₁₀) from mobile sources is 33,659 tons. Approximately 47 percent of this total is from diesel-powered mobile sources including:

- 8,564 tons from on-road diesel heavy duty vehicles;
- 4,990 tons from non-road diesel equipment;
- 1,476 tons from commercial marine vessels;
- 295 tons from diesel-powered locomotives; and
- 497 tons from on-road diesel light duty vehicles.

Florida's ambient monitoring network for PM₁₀ shows that there are no areas of the state exceeding the 24-hour PM₁₀ NAAQS.

Overall trends in the state's air quality are good. There does, however, remain work to address local impacts of emissions from older diesel engines, which are projected to remain a component of commercial and government operated vehicle fleets for many years. Encouraging voluntary measures with the aid of grant funding to address related air quality impacts is important to Florida's broader goal of improving air quality for the state's citizens and visitors.

Additionally, prioritizations for project-specific funding through the DERA program will be, to the greatest extent possible, based on project types not prioritized in the Department's Mitigation Plan through the Volkswagen Settlement. Florida's Mitigation Plan prioritizes School, Transit, and Shuttle Bus replacements (70 percent of funding), and the installation of Electric Vehicle Charging Infrastructure (15 percent of funding). The third and final priority is the state's participation in the DERA program, which represents the remaining 15 percent of funding from the Volkswagen Settlement. The Mitigation Plan specifies that the Department will prioritize replacement of diesel units with electric or alternative fuels where possible. Due to the disparity of upfront costs to purchase electric school and transit buses compared to diesel, and the goal to reduce NO_x to the greatest extent practicable, the Department will aim to select DERA projects with the greatest per project NO_x reduction when electric and/or alternative fuel replacement options are not possible. Marine vessel engine replacements and switcher locomotive replacements, along with certain nonroad repower options, have been proven to have the greatest

per-project NO_x emissions reduction. Therefore, this next round of DERA funding will focus on port and/or other commerce related projects.

VEHICLES AND TECHNOLOGIES:

As of the date of this submittal, the Department has identified a need for port and other commerce related projects for this round of DERA funding. Through stakeholder engagement and recent success in funding a marine engine replacement project and port drayage trucks, the Department has identified the following port projects for consideration:

- Marine engines, including ferries and tugs
- Nonroad equipment
- Switcher locomotives
- Port drayage trucks
- Medium-duty and heavy-duty trucks

The Department selected these projects based on the previously mentioned prioritizations in the Florida Mitigation Plan, as well as the recent success funding marine engine and port drayage truck replacement projects.

ROLES AND RESPONSIBILITIES:

The Department will work with entities identified during a Notice of Funding Availability to take place before the end of 2020. The Department may elect to use Trust Funds to leverage resources beyond the state voluntary match. As the lead agency designated by the Florida Governor under the Trust, the Department will be responsible for providing the incentive match from the Trust. All cost sharing requirements with project partners will be evaluated to meet minimum DERA guidelines but may be increased depending on the extent of interest from project partners. The Department's DERA Program will consider asking project partners to increase their cost share amount which will allow for the possibility of more DERA project partners and ultimately more units being retrofitted, repowered, or replaced. The Department's Division of Air Resource Management will be responsible for managing the state's DERA program including contract management and purchasing. The Department's Bureau of Finance and Accounting within the Division of Administrative Services will submit to EPA grant drawdown requests after projects are completed.

TIMELINE AND MILESTONES:

The Department intends to identify a list of partners for the 2020 DERA program in late 2020. The Department will then develop grant agreements with the selected project partner or partners in late 2020 to early 2021. The Department expects this round of funding to follow this general timeline:

Next Round of DERA Project(s)

- Late 2020 – Department develops grant agreements with the final project partner or partners for the FY 2018 and FY 2019 DERA grant pursuant to Florida’s FY 2019-20 budget authority.
- Early 2021 – Deadline for project partners to select vendors for the project.
- May 2021 – Department conducts program evaluation to ensure progress on selected project or projects.
- June 2021 – Project partner or partners complete all work under the grant agreement and provide all required documentation to the Department thereby becoming eligible for reimbursement. Department reimburses project partners for completed work pursuant to the grant agreement or agreements. Once reimbursements have been paid to the project partners, the Department will prepare and submit a reimbursement package to EPA.

DERA PROGRAMMATIC PRIORITIES:

Projects funded under the DERA grants will align with EPA’s programmatic priorities of achieving significant reductions in diesel emissions exposure from engines operating in areas with greater local air quality concerns relating to diesel vehicle emissions. These areas include places where Port projects are found (i.e., dense urban settings on coastal waterways at which numerous Port commerce units operate). As of the date of this submittal, the Department is evaluating Port projects with potential to address emissions taking place on land and units in the water. These emissions reductions will benefit port workers, and, at some ports, also benefit passengers of vessels which are based in the port. Additionally, most of Florida’s ports are located in areas closer to the NAAQS for ozone.

EPA’S STRATEGIC PLAN LINKAGE AND ANTICIPATED OUTCOMES/OUTPUTS:

Florida’s 2020 DERA grant program will fund mitigation projects consistent with EPA’s Strategic Plan for DERA programs to reduce local and regional air pollution from criteria pollutants and air toxics. The Department will utilize EPA’s Diesel Emissions Quantifier (DEQ – available at www.epa.gov/cleandiesel/diesel-emissions-quantifier-deq), among other tools, to quantify the emission reductions for each project. The Department will also utilize DEQ-modeled outputs, including the number of engines replaced, and document related outreach and communication efforts to link activities under Florida’s 2020 DERA grant program to EPA’s Strategic Plan. The two examples of potential projects below show the relative NO_x and PM reductions for switcher locomotives and tugs when repowered with engines that meet new standards.

Switcher Locomotive (1,000 HP Tier 0 engine with 3,000 hours of annual operation)

- Eligible Unit: 6,894 lbs/year of NO_x and 236 lbs/year of PM
- New Unit: 546 lbs/year of NO_x and 6 lbs/year of PM
- Percent Reduced: 94% in NO_x and 97% in PM

Tugboat (Two 1,000 HP uncontrolled engines with 1,000 hours of annual operation)

- Eligible Unit: 28,702 lbs/year of NO_x and 3,798 lbs/year of PM
- New Unit: 796 lbs/year of NO_x and 76 lbs/year of PM

- Percent Reduced: 97% in NO_x and 98% in PM

SUSTAINABILITY OF THE PROGRAM:

The Department maintains a website that contains records related to past DERA-related projects: <https://floridadep.gov/air/air-director/content/diesel-emissions-reduction-act-dera-florida>.

The Department also published a website relating to the Trust: <https://floridadep.gov/volkswagen>

Throughout the administration of Florida's 2020 DERA State Grant program, the Department will maintain a publicly accessible website and repository of data and information obtained through various outreach and procurement related activities. The Department anticipates utilizing the DERA Option under the Volkswagen Partial Consent Decree over the duration of programmatic activities related to implementation of the Volkswagen Environmental Mitigation Trust. The Department expects that DERA-related projects may occur over multiple years, and the benefits of such projects will be compounded by association with larger-scale diesel emission reduction and NO_x mitigation activities under the Volkswagen Environmental Mitigation Trust. The Department is committed to identifying, developing, and administering projects that maximize the environmental benefits that accrue through targeted diesel emission reduction efforts, consistent with the requirements of the Volkswagen Partial Consent Decree and DERA program. All projects funded through these programs will be documented and archived on a publicly available website, and they may be featured in targeted public communication efforts through web-based and conventional media outlets at both a local and state level.

BUDGET NARRATIVE

2020 Itemized Project Budget

Budget Category	EPA Allocation	Mandatory Cost-Share	Voluntary Match (if applicable)		Line Total
			VW Mitigation Trust Funds	Other Funds	
1. Personnel	\$0	\$0	\$0	\$0	\$0
2. Fringe Benefits	\$0	\$0	\$0	\$0	\$0
3. Travel	\$0	\$0	\$0	\$0	\$0
4. Equipment	\$0	\$0	\$0	\$0	\$0
5. Supplies	\$0	\$0	\$0	\$0	\$0
6. Contractual	\$585,168	\$0	\$390,112*	\$0	\$975,280*
7. Other	\$0	TBD	\$0	\$0	\$0
8. Total Direct Charges (sum 1-7)	\$585,168	TBD	\$390,112*	\$0	\$975,280*
9. Indirect Charges	\$0	\$0	\$0	\$0	\$0
10. Total (Indirect + Direct)	\$585,168		\$390,112	\$0	\$975,280
11. Program Income	\$0	\$0	\$0	TBD	TBD

*This amount is a minimum amount to qualify for the EPA bonus amount. The Department will also consider over-matching.

Explanation of Budget Framework

- ***Personnel***

The Department does not intend to spend any DERA funds to support personnel expenses incurred during the administration of Florida's 2020 DERA State Grant program. Work associated with the DERA program will be assumed by current Department staff.

- ***Fringe Benefits***

The Department does not intend to spend any DERA funds to cover fringe benefit costs incurred during the administration of Florida's 2020 DERA State Grant program.

- ***Travel***

The Department does not intend to spend any DERA funds on travel costs incurred during the administration of Florida's 2020 DERA State Grant program. Travel and other costs associated with the Department's attendance at the Southeast Diesel Collaborative have been budgeted within Department's existing budget and will not be funded by the DERA program.

- ***Equipment***

The Department intends to provide DERA funds (and associated Volkswagen Environmental Mitigation Trust Funds) through grant agreement relationships with program partners that have eligible projects under the DERA program. Once partners and projects have been identified, the state will comply with the state's procurement guidelines, if applicable. The Department will attempt to spend all funding on the purchase of equipment to replace old diesel equipment.

- ***Supplies***

The Department does not intend to spend any DERA funds on supply costs incurred during the administration of Florida's 2020 DERA State Grant program.

- ***Contractual***

The Department does not intend to spend any DERA funds on contractual costs incurred during the administration of Florida's 2020 DERA State Grant program.

- ***Other***

The Department does not intend to spend any DERA funds on equipment during the administration of Florida's 2020 DERA State Grant program.

- ***Indirect Charges***

The Department does not intend to spend any DERA funds on indirect charges incurred during the administration of Florida's 2020 DERA State Grant program.

Administrative Costs Expense Cap

States and territories must demonstrate that no more than 15% of a state's or territory's total project costs are being used to cover administrative costs as identified in OMB Circular A-87 Appendix B (e.g. personnel, benefits, travel, supplies). Total project costs include the federal share as well as any cost-share provided by the state. However, Regions have the discretion to allow state matching funds to exceed the 15% cap if the state provides justification for unique circumstances. The 15% maximum does not include indirect cost rates or funds assigned to projects, and total cost for the budget period.

The Department does not intend to spend any DERA funding on administrative costs.

Matching Funds and Cost-Share Funds

States and territories must provide a detailed description of the source of funding for any voluntary match or mandatory cost-share funds included in the project budget, if applicable. Include details on when the match will be available for use. If applicable, include letters of financial support, which specifically indicate how supporting organizations will assist in the project.

See Sections V.D and X of the Program Guide for more information on the voluntary matching incentive and mandatory cost-share funds.

Florida plans to utilize matching funds and potentially overmatching funds from the Volkswagen Mitigation Trust for Florida's state match. In addition, the Department will require that all project partners meet the minimum DERA cost share requirements. As stated above, the Department may increase the level of cost share required by project partners. The Department will require that project partners meet all applicable cost-share requirements as specified in the State Clean Diesel Grant Program Information Guide.

Funding Partnerships

If a DERA grant recipient intends to fund target fleets that they do not own and operate, they have the option to (1) make a **subaward** or (2) provide **participant support costs** to a project partner. Both options can fund a project partner's equipment and installation costs, but only subawards can fund a project partner's direct and indirect costs such as personnel and travel. If the DERA grant recipient is only funding a project partner's equipment and installation costs, they may instead choose to provide participant support costs rather than a subaward to avoid the extensive subaward monitoring and management requirements.

For more information on categorizing costs for funding partnerships, please refer to Section XIII of the Program Guide.

The Department does not anticipate activities that qualify under this heading.